

NASA Vision

"To discover and expand knowledge for the benefit of humanity"



We Are Going to the Moon To Prepare for Mars

Artemis, named after the **twin sister of Apollo** who is also the Goddess of the Moon and the hunt, encompasses all of our efforts to return humans to the Moon – which will prepare us and propel us on to Mars.

Through the Artemis program, we will see the first woman and the next man walk on the surface of the Moon.

Meet the Rocket: Space Launch System (SLS)

NASA's Space Launch System will be the most powerful rocket we've ever built. When completed, SLS will enable astronauts to begin their journey to explore destinations far into the solar system.

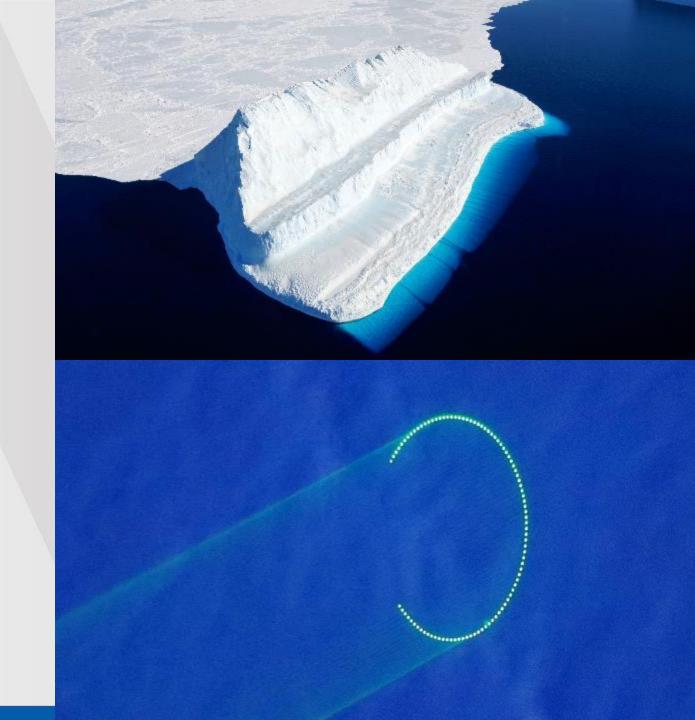
SLS is a powerful, advanced launch vehicle for a new era of human exploration beyond Earth's orbit. With its unprecedented power and capabilities, SLS will launch crews of up to four astronauts in the agency's Orion spacecraft on missions to explore multiple, deep-space destinations.

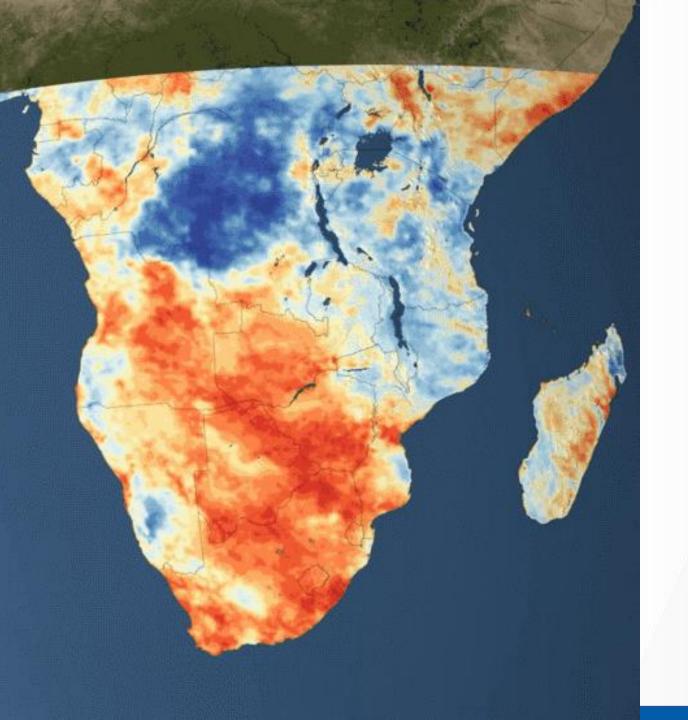


Humanity on Earth: Monitoring Sea Level Rise

NASA's Operation IceBridge is yielding an unprecedented three-dimensional view of Arctic and Antarctic ice sheets, ice shelves and sea ice. These flights provide a yearly look at the behavior of the rapidly changing features of the Greenland and Antarctic ice.

IceBridge collects critical data used to predict the response of Earth's polar ice to climate change and resulting sea-level rise.





Humanity on Earth: Detecting Famine Conditions

NASA is part of an interagency effort funded by the United States Agency for International Development (USAID) that provides early warning and analysis on instances of acute food insecurity around the world.

Humanity on Earth: Finding New Water Sources

Using satellite and other remote-sensing topographical data from NASA, Radar Technologies International developed software that can locate underground water. Working with international organizations and governments, the firm is helping find water sources for refugees and other people in drought-stricken regions such as Kenya, Sudan and Afghanistan.





Humanity of Earth: Detecting Cancer

Image-Analysis Software Sees Cancer in 3D

Using the filters and algorithms created to study the shape of astronauts eyes in space, researchers found they could could also identify the three-dimensional shape of a tumor within an image series.



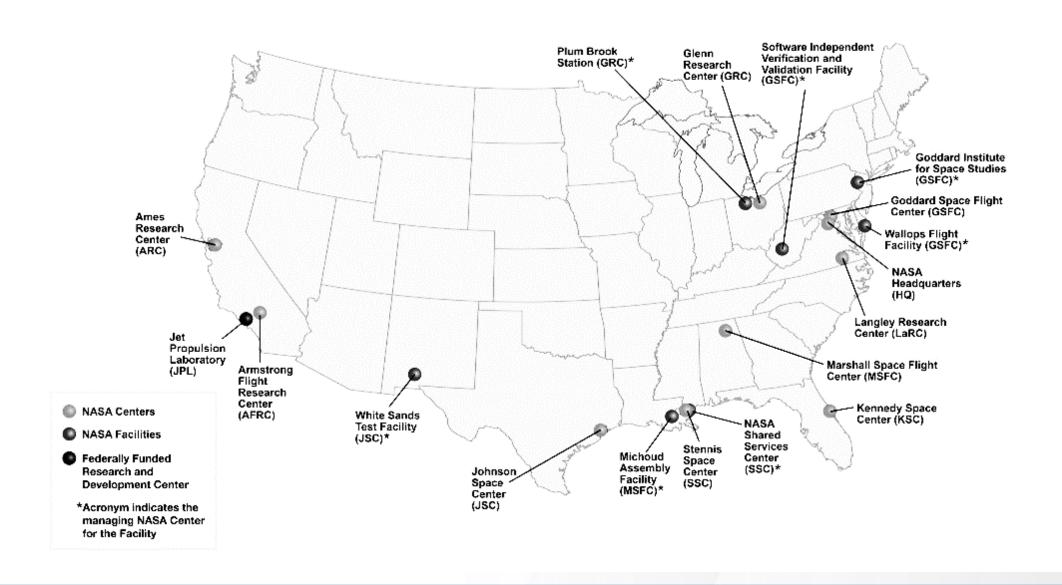
NASA Internships

Pathways and STEM Engagement Programs

Two Internship Programs: Pathways and STEM Engagement

	Pathways	STEM Engagement	
Employment Status	Civil Servant	Non-civil servant	
Application System	usajobs.gov/studentsandgrads	Intern.nasa.gov	
Website	www.nasa.gov/careers/pathways- program	Intern.nasa.gov	
Multi-Center	No	Yes	
Majors	STEM and Non-STEM (currently 70/30)	Focused on STEM (limited opportunities for other majors)	
Degree Levels	College sophomores through Post Graduate	High school through Post Graduate	
Start Dates	Spring/Summer/Fall	Spring/Summer/Fall	

NASA Locations







Pathways Program Requirements

- 1. U.S. citizenship
- 2. Successfully completed at least 30 semester hours of undergraduate education
- 3. Currently enrolled in (or accepted for enrollment to) an accredited college or university on at least a half time basis:

Engineering programs: http://www.abet.org/

All programs: http://ope.ed.gov/accreditation/

- 4. Currently have and maintain a cumulative GPA of 2.9 or higher (on a 4.0 scale)
- 5. Be able to complete at least 640 hours of Pathways work experience prior to completing your degree requirements
- 6. Have at least one academic year remaining in your degree program. *Center requirements may vary, please read each vacancy for specific Center details.
- * Veterans Preference does apply to all Pathway opportunities

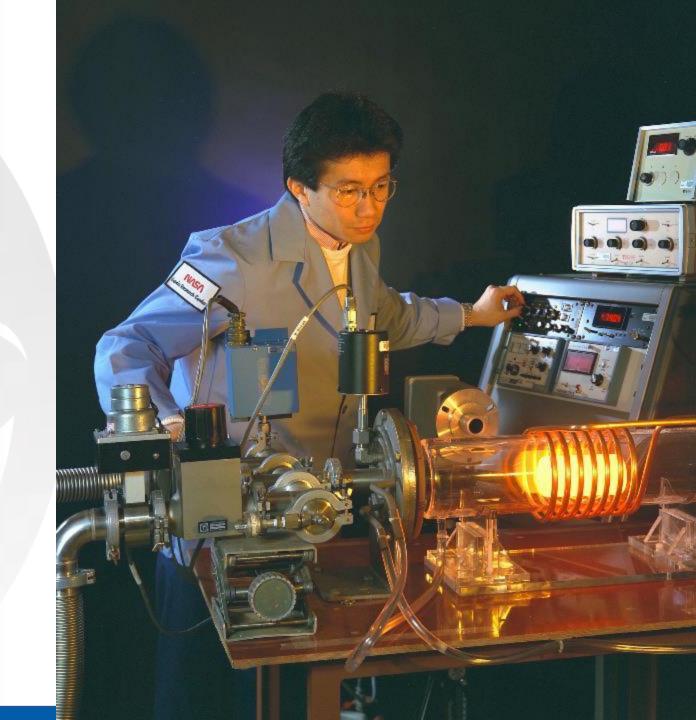
STEM Engagement Requirements

- 1. U.S. citizenship
- 2. A minimum of 16 years of age at the time of application
- 3. Currently enrolled in (or accepted for enrollment to) an accredited college or university as full time or a part-time college-level student enrolled in a minimum of 6 semester hours:

Engineering programs: http://www.abet.org/

All programs: http://ope.ed.gov/accreditation/

4. Currently have and maintain a cumulative GPA of 3.0 or higher (on a 4.0 scale)



Preferred Fields of Study

STEM Majors

Technology: Airborne Science Research, Balloons & Sounding Rockets, Computer Science, Electronics, Nanotechnology, Software Engineering, Systems Engineering/Design

Engineering: Aerospace Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Detector Systems, Environmental Engineering, Instrumentation Engineering, Materials Engineering, Composites Applications, Mechanical Engineering, Microelectronics & Signal Processing, Optical Engineering, Robotics, Thermal Engineering, Welding Engineering

Science: Applied Optics, Chemistry, Physics, Materials Science

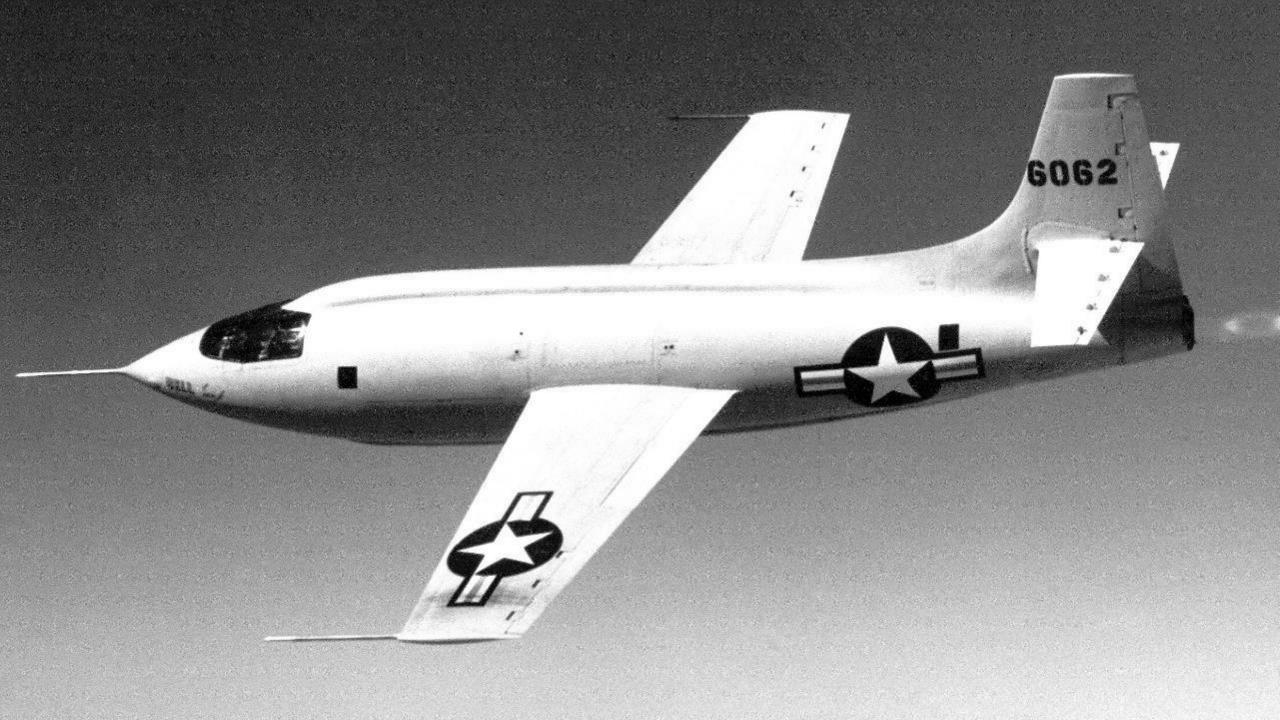
*Just a sample, not limited to listed majors

Business and Related Majors

Non-Technical: Business, Administrative, Accounting, Economics, Finance, Logistics, Management Information Systems, Communications, Public Relations, Marketing, Management, Human Resources, Education

*Please note, Engineering Technology degrees do not qualify for Pathways engineering positions. Each position will list preferred or required majors, please see vacancy for specific educations requirements.





NASA Internship Value

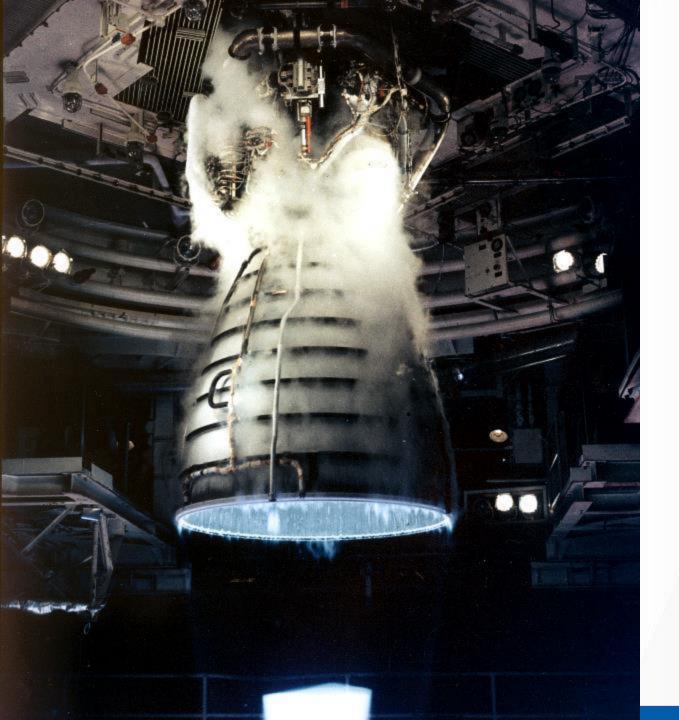
- Contribute to the NASA STEM Engagement Strategic Plan
- Be part of a diverse workforce
- Foster and inspire innovation and new, fresh ideas at NASA
- Access to a wide body of knowledge
- NASA Interns are NASA ambassadors

STEM Engagement Internships

- Short term work on specific project
- Flexibility of selecting specific majors (Ex. Space architects, digital media, and optics engineering)

Pathways Internships

- Long term work on multiple projects
- Focus on core majors (accounting and aerospace engineering)

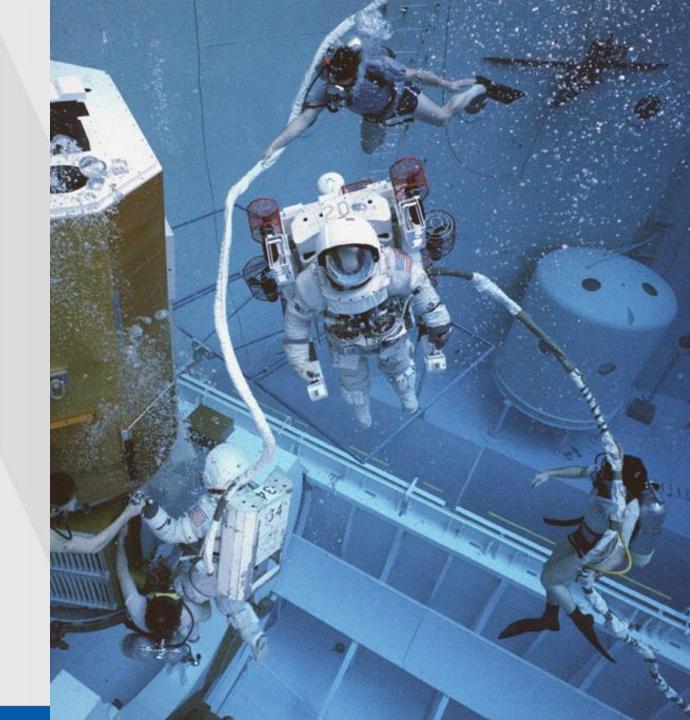


Pathways Intern Benefits

- Option to rotate to different NASA centers
- Option to rotate through different orgs at assigned center
- Meaningful work, continuous learning, and mentorship
- Eligible for conversion to a permanent or term appointment employment after completion of program and degree requirements
- Promotion eligibility while in the Pathways Program
- Health Insurance (can be carried over when student is back at school)
- Life Insurance
- Federal Employees Retirement System (FERS) & Thrift Savings Plan (TSP)
- Annual Leave / Sick Leave / Military Leave
- Paid Federal Holidays

STEM Engagement Benefits

- Competitive Stipend
- Ability to chose new projects each semester and apply for internships across the agency
- Short term, fun projects offered by great mentors
- Be part of the NASA team and network across the globe
- Full-time, part-time and virtual internships are available
- Teachers are welcome to apply too



How to Apply: Pathways

- Go to <u>www.USAJobs.gov</u> to create an account.
- 2. Create a profile (fill in the fields). Make sure you indicate veteran's preference status.
- Create an alert so that you receive an email when opportunities match your criteria
- 4. Look for announcements titled "Student Trainee." The announcements will highlight which track this particular internship is part of. Students can choose to apply to one or both track options as positions become available.
- 5. Once you find an opportunity, follow the instructions in the "How to Apply" section of the announcement.
- 6. Your qualifications will no longer be based on keywords; rather your resume will be reviewed to ensure your experience is in line with the position you are applying to. Make sure to upload the required documents and your resume!
- 7. It is recommended you watch USAJobs resume tutorials on either the USAJobs Home Page or by visiting their YouTube Channel.
- 8. Pay special attention to required documents, as not submitting them will result in a disqualification for the position you are applying to.



How to Apply: STEM Engagement

- 1. Go to intern.nasa.gov
- 2. Look for Learn More
- 3. Click Apply Here





Resume Tips: The Basics

- 1. Include your contact information (City, State, Zip Code)
- 2. Use a professional email address
- 3. Create a professional message on your voicemail
- 4. Check with your references before using their names
- 5. Check your spelling and grammar
- 6. Include all major education factors (GPA, graduation date, degree level, major, relevant coursework)
- 7. Please make sure to read the entire vacancy.

Resume Tips: Stand Out

- 1. Work Experience (you are not limited to 1 page)
 - Document all related jobs
 - Use school projects if you lack job experience
 - Describe unrelated jobs the right way
- 2. Think like an employer (tailor your application to the position)
- 3. Federal resumes can be longer and require more information than private sector/non-profit resumes.

Important sections for STEM

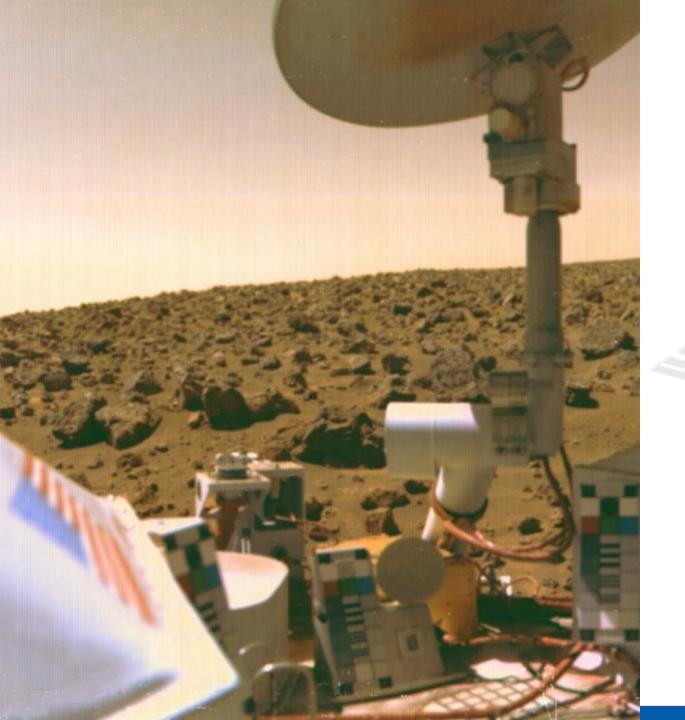
- Computer Skills: Describe your knowledge of any computer skills, software languages, hardware, or any specialized computer programs.
- Technical Skills: Include any knowledge or capabilities to perform specialized tasks. This may include laboratory experience, special tools machine shop, etc.
- Other Skills: List any other skills needed. This includes soft skills (communication, leadership, teamwork, etc.)
- Previous NASA Program Experience
- List any NASA program experience Space Grant





Resume Tips: Describing Your Experience

- Focus on the qualification requirements section of the vacancy announcement - your resume should describe how you meet the requirements
- Resume should be results driven Use the S.A.R method: Describe the Situation, Action and Result.
- Use action words to describe work experience: managed, assisted, responded, planned, coordinated, met with, implemented, communicated with, tested, developed, spearheaded, etc.
- Include special skills like computer proficiency and language ability
- Plan ahead Allow plenty of time to thoroughly proof read and complete your application
- Apply by the deadline or better yet early!



NASA Careers

• **Direct Hire Authority**: OPM granted NASA the option to hire 3600 new employees over a 5 year period, for specific STEM occupations, grades GS-7/15 based on the "critical need" to return American Astronauts to the moon by 2024 and to position America as the lead in civil aerospace

NASA Internships

- 1. STEM Engagement Internship: Join the NASA team
- Work on a project that fits your interests
- Learn by experiencing one of the federal governments' Best Places to Work with some of the best mentors.
- 2. Pathways Program: Direct Path to NASA career
- Pathways Intern
- Recent Graduate (2 years)
- Presidential Management Fellowship (PMF)



NASA Research Opportunities

Supporting research in science and technology is an important part of NASA's overall mission. NASA solicits this research through the release of various research announcements in a wide range of science and technology disciplines.

NASA uses a peer review process to evaluate and select research proposals submitted in response to these research announcements. Researchers can help NASA achieve national research objectives by submitting research proposals and conducting awarded research.

nspires.nasaprs.com



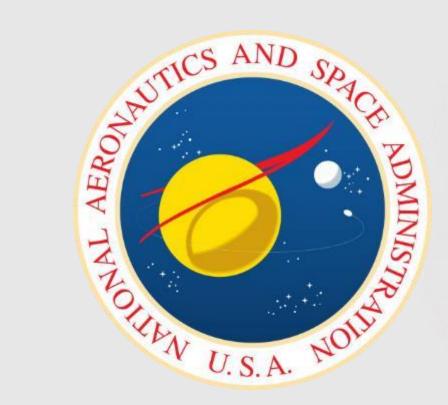
NASA Opportunities for International Students

Participating countries: Australia, Brazil, Canada, European Union, Israel, Jordan, Lithuania, Mexico, New Zealand, Norway, Portugal, South Korea, Sweden, Trinidad and Tobago and the United Arab Emirates

 If you are a citizen of one of the countries listed above, and are interested in applying to one of the available research opportunities, please go to <u>intern.nasa.gov</u> to learn more.

Additional Requirements Include:

- •Currently pursuing an undergraduate or graduate degree in science, technology, engineering or mathematics (STEM) in a topic relevant to NASA's mission priorities.
- Maintaining high academic standing.
- •Demonstrating an active interest in the U.S. space program.
- Communicating Proficiently in English



NASA Recognized as the Best Place to Work in 2019

"I am thrilled to announce NASA has been named by the Partnership for Public Service as the <u>Best Place to Work in Government</u> for the **eighth consecutive year.**

Your individual drive and collective enthusiasm has always impressed me. This past year we have marked incredible progress in our research and exploration objectives. This is only possible because of your daily dedication. Together, we are launching the next era of human space exploration, increasing our understanding about the Earth and laying a foundation for the next generation to make even greater discoveries.

I am proud to lead such a dedicated workforce that is determined to deliver on our promise to push the limits of humanity's scientific knowledge further than ever before. On behalf of our nation, I wish to extend my heartfelt gratitude to each of you."

Ad Astra,

Jim Bridenstine





Questions?

intern.nasa.gov usajobs.gov

